

FUJO 19.465
10/080.977REMARKS

This amendment is in response to the Examiner's Office Action dated 2/7/2005. Claims 1, 8, 11, 17, and 19 have been amended for clarification purposes without adding new matter. Reconsideration of this application is respectfully requested in view of the foregoing amendment and the remarks that follow.

STATUS OF CLAIMS

Claims 1-19 are pending.

Claims 1-13, 16, 17 and 19 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over Sawyer (USP 5901145).

Claims 14-16 and 18 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over Kabasawa (USP 5987013).

OVERVIEW OF CLAIMED INVENTION

The present invention provides for a mobile communications system in which first and second frequencies are allocated to each wireless communications area. In one embodiment, the system comprises a first base station (provided in a first wireless communications area), a second base station (provided in a second wireless communications area), a third base station (in a third wireless communications area adjacent to the first and second wireless communications areas), a first controller, and a second controller. The first controller controls the first base station device using the first and second frequencies and controls communications conducted by the third base station device uses the first frequency but does not control communications conducted by the third base station device using the second frequency. Similarly, the second controller controls

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the second base station device using the first and second frequencies and controls communications conducted by the third base station device using the second frequency but does not control communications conducted by the third base station device using the first frequency.

The present invention also provides for a base station device, located adjacent to a base station using a plurality of frequencies, that shares at least one of the plurality of frequencies. In this embodiment, the device comprises controlling means for performing a soft hand-off process if there is a hand-off from this base station to the adjacent base station when the shared frequency is used, and performing a hard hand-off process between cells using the shared frequency if there is a hand-off from adjacent base station to this base station when a frequency other than the shared frequency is used in the adjacent base station.

REJECTIONS UNDER 35 U.S.C. § 102

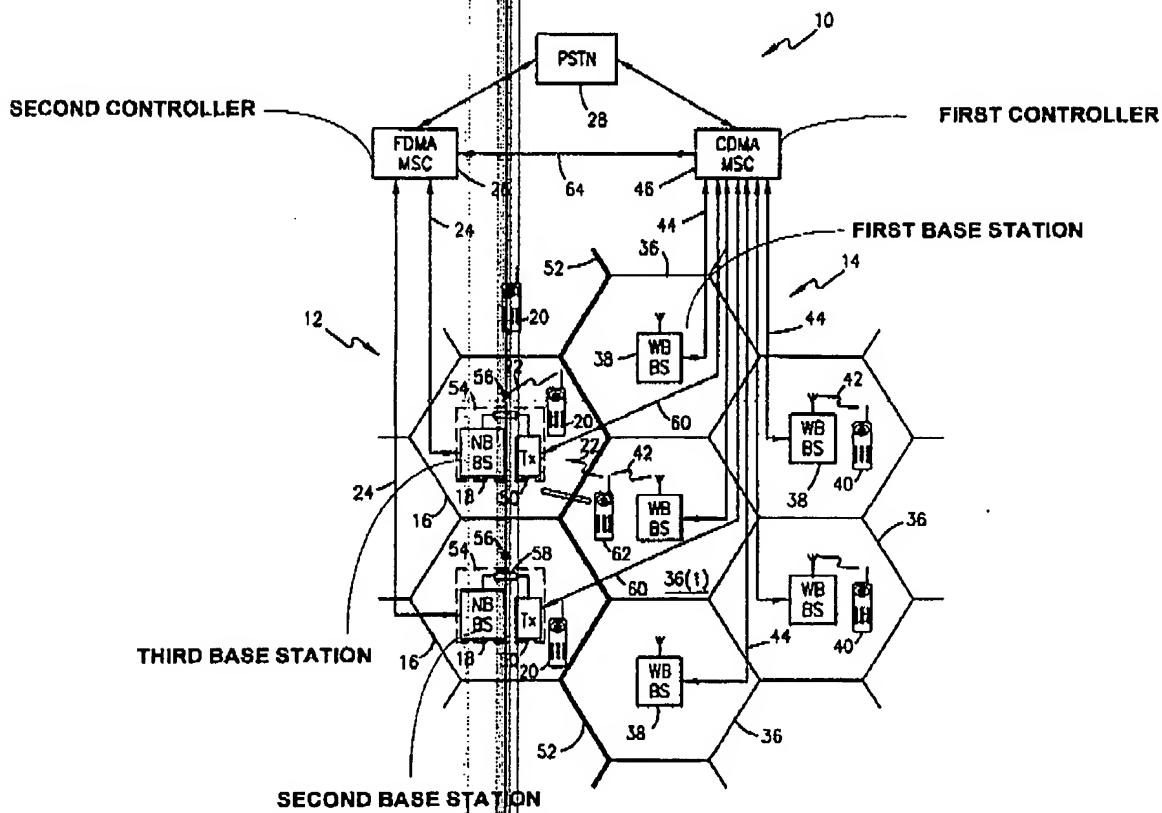
Claims 1-13, 16, 17 and 19 stand rejected under 35 U.S.C. § 102(e) as being unpatentable over Sawyer (USP 5,901,145). Claims 14-16 and 18 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over Kabasawa (USP 5,987,013). To be properly rejected under 35 U.S.C. §102(e) and §102(b), each and every element of the claims must be disclosed in a single cited reference. The applicant, however, contends that the presently claimed invention cannot be anticipated in view of either the Sawyer or Kabasawa references.

The Sawyer reference teaches a spread spectrum communications system that comprises a first plurality of cells; a wideband radio frequency base station positioned in each of the first plurality of cells; a wideband mobile switching center connected to each of the wideband radio frequency base stations; and a plurality of wideband radio frequency transmitters for broadcasting

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a spread spectrum pilot channel, wherein the wideband radio frequency transmitters are connected to the wideband mobile switching center and are positioned one each in each of a second plurality of cells, and the second plurality of cells are different from the first plurality of cells and are associated with a non-spread spectrum communications system.

The examiner's attention is directed to figure 1 of Sawyer (a copy of which is reproduced below for the benefit of the examiner) wherein a schematic diagram is shown of a multiple access communications system 10 including a frequency division multiple access (FDMA) communications portion 12 and a code division multiple access (CDMA) communications portion 14.



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Sawyer, in column 4, lines 31-34 states that narrow band (NB) base station (BS) 18 (herein marked second and third base station) supports FDMA. However, Sawyer, by his own admission in column 2, lines 35-46 states that "each adjacent cell operates with a different set of radio frequencies". Accordingly, applicant contends that the NB-BSs 18 (herein marked second and third base station) use a different set of frequencies. In Sawyer, frequencies controlled by the second controller (corresponding to FDMA MSC) have to be different in the second BS and in the third BS (Corresponding to NB BSs in adjacent cells).

Applicant, therefore, contends that Sawyer fails to teach the limitation of a first controller controlling the first base station device using both the first and second frequencies and controlling communication conducted by the third base station using the first frequency, but not controlling communications conducted by the third base station device using the second frequency – a limitation of independent claims 1, 8, 12, 17, and 19.

Applicant also contends that Sawyer fails to teach the limitation of a second controller controlling the second base station device using the first and second frequencies and controlling communications conducted by the third base station device using the second frequency, but not controlling communications conducted by said third base station device using the first frequency – yet another limitation of independent claims 1, 8, 12, 17, and 19.

Hence, applicant contends that independent claims 1, 8, 12, 17, and 19 are neither anticipated nor rendered obvious by the Sawyer reference, as the Sawyer reference fails to teach each and every limitation of claims 1, 8, 12, 17, and 19.

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With respect to independent claim 11, applicant wishes to note that in the claimed invention, the first and second frequencies allocated to the third base station are used in the same multiplex access scheme. By stark contrast, in the Sawyer reference, the NB BS and TX are utilized in different multiplex access schemes. Hence, applicant contends that independent claim 11 is neither anticipated nor rendered obvious by the Sawyer reference, as the Sawyer reference fails to teach each and every limitation of claim 11.

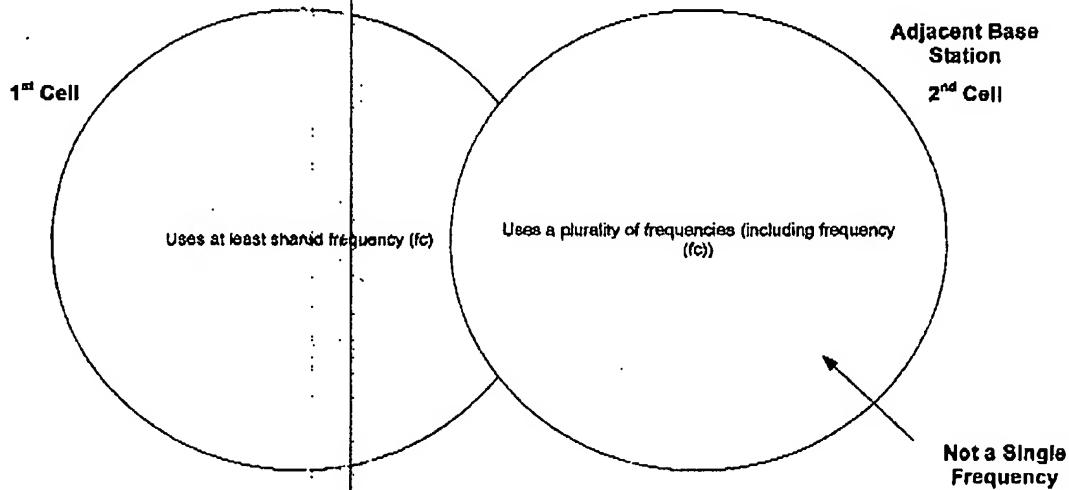
If the examiner feels that NB-BSS 18 of the Sawyer reference still remedies such limitations, applicant respectfully reminds the examiner that it is the duty of the examiner to specifically point out each and every limitation of a claim being rejected as per §1.104(c)(2) of Title 37 of the Code of Federal Regulations and section 707 of the M.P.E.P., which explicitly states that "the particular part relied on must be designated" and "the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified."

Kabasawa et al. teach a method to expedite handoff control while a mobile unit moves between first and neighboring second cells, wherein A and B frequencies are assigned for traffic communication to a first base station and only B frequency is assigned for traffic communication to a second base station, and both of the base stations are connected to a control station and wherein the first base station is assigned to the first cell and the second base station is assigned to the second cell. The mobile unit has been assigned A frequency in the first base station, and the second base station is accompanied by a pilot transmitting device for transmitting only a pilot signal on the A frequency. As soon as it is informed of deterioration in a field intensity of the frequency at the mobile unit together with pilot information specific to the pilot signal from the

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first base station, the control station makes a determination that the mobile unit is approaching the second base station, and deals with a handoff from the A frequency to the B frequency.

Specifically, with respect to independent claims 14, 15, 16, and 18, the examiner cites column 9, lines 41-61 of the Kabasawa reference and argues that the citation teaches a soft hand-off process. However, a closer reading of the citation and the Kabasawa et al. reference in its entirety merely reveals that a "first service frequency" is switched to "one of other frequency". Also, when moving from cell 13 (using a plurality of frequencies (A, B)) to cell 15, there is no mention in Kabasawa of a soft hand-off to an adjacent cell using a plurality of frequencies as described in applicant's claims 14, 15, 16, and 18. That is, the moving direction of a mobile station between base stations in Kabasawa is opposite to the direction taught by applicant's claimed invention. To help better illustrate the present invention's limitation, the examiner is respectfully requested to refer to the figure below:



In the case where the frequency fc is used in the 1st cell and the mobile station moves to the 2nd cell, a soft hand-off with fc is performed; and in the case where a frequency other than fc is used

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in the 2nd cell and the mobile station moves from the 1st cell, a hard hand-off is performed – limitations neither taught nor suggested in the Kabasawa et al. reference.

Therefore, applicant contends that the Kabasawa reference merely teaches hard hand-off and fails to either teach or suggest the soft-hand-off limitation of claims 14, 15, 16, and 18. Hence, applicant contends that independent claims 14, 15, 16, and 18 are neither anticipated nor rendered obvious by the Kabasawa reference, as the Kabasawa reference fails to teach each and every limitation of claims 14, 15, 16, and 18.

The above-mentioned arguments for independent claims 1, 8, and 12 substantially apply to dependent claims 2-7, and 9-10 as they inherit all of the limitations of the claims from which they depend. The examiner is hereby respectfully requested to withdraw all the rejections with respect to the pending claims.

SUMMARY

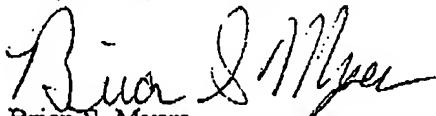
As has been detailed above, none of the references, cited or applied, provide for the specific claimed details of applicant's presently claimed invention, nor renders them obvious. It is believed that this case is in condition for allowance and reconsideration thereof and early issuance is respectfully requested.

As this amendment has been timely filed within the set period of response, no petition for extension of time or associated fee is required. However, the Commissioner is hereby authorized to charge any deficiencies in the fees provided to Deposit Account No. 50-1290.

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If it is felt that an interview would expedite prosecution of this application, please do not hesitate to contact applicant's representative at the below number.

Respectfully submitted,



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May 9, 2005

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